

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 98 - 067

REVISION TO SITE CLEANUP REQUIREMENTS AND RESCISSION OF ORDER
NO. 89-110 FOR:

JONES-HAMILTON COMPANY

for the property located at

8400 ENTERPRISE DRIVE
NEWARK, ALAMEDA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Board), finds that:

1. **Site Location:** The site is located at 8400 Enterprise Drive, Newark, Alameda County (hereinafter the site). The site is located west of I-880 and east of salt evaporation ponds in an area with various industrial and commercial uses (see figure 1).
2. **Site History:** Jones-Hamilton Company operates a chemical blending and packaging facility. It has handled and stored various chemical compounds at this site since 1956. These chemical compounds included gasoline, sodium bisulfate, hydrochloric acid, arsenic acid, chromic acid, cupric acid, formaldehyde, triethanolamine, pentachlorophenol, a variety of surfactants, and a variety of hydrocarbon-based solvents. Previous activities include the operation of two hazardous waste management units (surface impoundments), the loading and unloading of a variety of raw waste liquids and recovered chlorinated chemical products, and the storage and distribution of these chemicals on site. Unauthorized releases of some of these chemicals reportedly occurred during the past years of operation.
3. **Named Dischargers:** Jones-Hamilton Company has owned and operated on the property since 1956 and is the current property owner. Jones-Hamilton Company is named as a discharger because its activities on the site (see finding 2 & 6) caused soil and groundwater pollution and because it was and is the property owner.

If additional information is submitted indicating that other parties caused or permitted any waste to be discharged on the site where it entered or could have entered waters of the State, the Board will consider adding that party's name to this Order.

4. **Regulatory Status:** This site is subject to the Board's Site Cleanup Requirements (Order No. 89-110) adopted on June 21, 1989. The purpose of revising the existing Site Cleanup Requirements is to evaluate the effectiveness of ongoing groundwater remediation system and to prepare a final remedial action plan.
5. **Site Hydrogeology:** The site is located within the Niles Cone groundwater basin. The Newark Aquitard is the uppermost clay unit covering nearly all of the Niles subarea, and is underlain by three identified aquifers, namely, the Newark Aquifer, Centerville-Fremont Aquifer and the Deep Aquifer. Each of these aquifers is separated by an extensive clay aquitard. The Newark Aquifer is the uppermost aquifer within the Niles subarea and ranges between 40 and 140 feet below ground surface (bgs). The thickness of this aquifer ranges from greater than 140 feet at the Hayward fault to less than 20 feet at the western edge near the San Francisco Bay. Lithologically, the site is characterized by a thin layer of fill materials underlain by three alluvial deposits units. These units are collectively termed as the Shallow Zone for the purpose of this Order. Topographically, the site is relatively horizontal with an elevation of approximately 11 feet above Mean Sea Level (MSL). Groundwater levels in the shallow zone below the Site generally range between 9 and 15 feet bgs, and the groundwater flow varies between westerly and southwesterly.
6. **Remedial Investigation:** The site has been adequately characterized. On-site and off-site investigations confirmed significant shallow groundwater pollution below the site. Pentachlorophenol (PCP) and 1,2-Dichloroethane (DCA) were found in shallow groundwater zone (0-20 feet) beneath the site at concentration of up to 1000 ppb and 2000 ppb, respectively. The main source of the PCP was the impoundment areas. Additional chemical compounds such as 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, benzene, chloroform, ethylbenzene, methylene chloride, 1,4 dichlorobenzene, naphthalene, toluene, 2-butanone, trichlorotrifluoroethane, 1,2-dichlorobenzene, 4-methylnaphthalene, 2,4,5-trichlorophenol, xylene, 4-methylphenol, 2,4,6-trichlorophenol, 2-methylphenol, diethylphthalate and benzoic acid were found at low concentrations. Also found in the shallow zone, and related to fuel leak which was documented in November, 1986, are elevated levels of total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene and xylenes. Chemical compounds found in excavated soil hot spots were similar to those detected in ground water.

The Newark Aquifer, located beneath the shallow zone, has not been impacted by these constituents in the site vicinity.
7. **Interim Remedial Measures:** Polluted soil has been excavated in the vicinity of the two surface impoundments. The two surface impoundments were closed on October 1, 1988. Closure involved encapsulation by a slurry wall followed by a synthetic liner, clay, and an asphalt cover, with groundwater extraction wells to create an inward gradient. Groundwater extraction and treatment continues; the system currently extracts 5 gallons per minute and discharges to the Union Sanitary District's sanitary sewer. Evaluation of the effectiveness of the groundwater remediation system and proposal of final remedial actions and cleanup standards are still needed.
8. **Adjacent Sites:** Four neighboring sites are currently conducting groundwater cleanup under Board Order. The sites are FMC, Romic Environmental Technologies (formerly known as Romic

Chemicals), Ashland Chemicals and Baron Blakeslee/Allied-Signal. Three of these sites are located immediately downgradient of or cross-gradient of the site. Baron Blakeslee is cross-gradient of this facility and is in the process of implementing soil and groundwater remediation. Pollutants from the sites have comeled to some extent in the shallow groundwater zone. Coordination of remedial actions is therefore desirable.

9. **Groundwater Management:** The Alameda County Water District (ACWD) manages groundwater resources in the Newark, Union City, and Fremont area. On average 35% of the residents' water supply comes from groundwater, most of this from well fields located about 5 miles east of the site. ACWD's management activities address saltwater intrusion caused by past overdrafting of the Newark Aquifer and deeper aquifers for domestic and agricultural uses. ACWD has reversed the overdrafting by recharging imported water and operates several extraction wells to remove high salinity groundwater from the Newark Aquifer and deeper aquifers within the Niles Cone (Aquifer Reclamation Program or ARP). ACWD is planning on treating a portion of its ARP pumpage for portable use with a proposed desalination plant about 1.5 miles southeast of the site.

In the late 1970s, ACWD initiated construction of an alignment of extraction wells in the Newark Aquifer to serve as salinity barrier curtain. The curtain has been planned to expand in a north-south direction, just inland of the salt evaporation ponds, for the entire width of the Niles Cone. The Salinity Barrier Project (SBP) wells would serve two functions: (i) prevent salt water intrusion during drought periods and (ii) hasten the removal of saline groundwater in the Newark Aquifer east of the SBP wells. At this time, ACWD has completed construction of five wells, including one within 1,500 feet of the site. Installation of additional wells has been postponed pending a re-evaluation of the project.

Chloride concentrations in the Newark Aquifer beneath the site range from 15,000 to 20,000 ppm, mainly as a result of saltwater intrusion. The site is located west (or bayward) of the proposed SBP wells alignment. Chloride concentrations are therefore not expected to decline, even after extended operation of SBP wells.

However, implementing the SBP may accelerate the migration of VOCs in shallow groundwater, both laterally and vertically. If significant VOC concentrations migrate to the SBP wells, then ACWD may be required to treat SBP well pumpage prior to discharging it to surface waters or blending it with raw water for beneficial use. The potential beneficial uses of groundwater beneath the site exist only to the extent that this groundwater is actively managed by the ACWD as part of its salinity management program.

One option for remedial action at this site is to establish an enforceable mechanism requiring the discharger to provide (or pay for) wellhead treatment of VOCs at the SBP wells, if treatment is necessary to meet applicable water quality standards. This option should be addressed in a draft remedial action plan for the site.

10. **Basin Plan:** The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20, 1995,

and November 13, 1995, respectively. A summary of regulatory provisions is contained in 23 CCR 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.

The potential beneficial uses of groundwater underlying and adjacent to the site include:

- a. Municipal and domestic water supply
- b. Industrial process water supply
- c. Industrial service water supply
- d. Agricultural water supply
- e. Freshwater replenishment to surface waters.

At present, there is no known use of groundwater underlying the site for the above purposes.

The existing and potential beneficial uses of the Plummer Creek, a tidal tributary of South San Francisco Bay, include:

- a. Water contact and non-contact recreation
- b. Wildlife habitat
- c. Cold freshwater and warm freshwater habitat
- d. Fish migration and spawning
- e. Estuarine habitat

11. **Other Board Policies:** Board Resolution No. 88-160 allows discharges of extracted, treated groundwater from site cleanups to surface waters only if it has been demonstrated that neither reclamation nor discharge to the sanitary sewer is technically and economically feasible.

Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high TDS, low yield, or naturally-high contaminant levels.

12. **State Water Board Policies:** State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," applies to this discharge and requires attainment of background levels of water quality, or the highest level of water quality which is reasonable if background levels of water quality cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of such water, and not result in exceedance of applicable water quality objectives.

State Water Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to this discharge. This order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

13. **Preliminary Cleanup Goals:** The discharger will need to make assumptions about future cleanup standards for soil and groundwater, in order to determine the necessary extent of remedial investigation, interim remedial actions, and the draft cleanup plan. Pending the establishment of site-specific cleanup standards, the following preliminary cleanup goals should be used for these purposes:
 - a. Groundwater: Applicable water quality objectives (e.g. maximum contaminant levels, or MCLs) or, in the absence of a chemical-specific objective, risk-based levels (e.g. drinking water equivalent levels).
 - b. Soil: 1 mg/kg total volatile organic compounds (VOCs), 10 mg/kg total semi-volatile organic compounds (SVOCs), and background concentrations of metals.
14. **Basis for 13304 Order:** The discharger has caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance.
15. **Cost Recovery:** Pursuant to California Water Code Section 13304, the discharger is hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this order.
16. **CEQA:** This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.
17. **Notification:** The Board has notified the discharger and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.
18. **Public Hearing:** The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the discharger (or its agents, successors, or assigns) shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous substances in a manner which will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.

2. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.
3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of wastes or hazardous substances are prohibited.

B. TASKS

1. PROPOSED FINAL REMEDIAL ACTIONS AND CLEANUP STANDARDS

COMPLIANCE DATE: September 1, 1999

Submit a technical report acceptable to the Executive Officer containing:

- a. Results of the remedial investigation
- b. Evaluation of the installed interim remedial actions
- c. Feasibility study evaluating alternative final remedial actions
- d. Risk assessment for current and post-cleanup exposures
- e. Recommended final remedial actions and cleanup standards
- f. Implementation tasks and time schedule

Item c should include projections of cost, effectiveness, benefits, and impact on public health, welfare, and the environment of each alternative action. Item c should also address the wellhead treatment option cited in finding 9.

Items a through c should be consistent with the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), CERCLA guidance documents with respect to remedial investigations and feasibility studies, Health and Safety Code Section 25356.1(c), and State Board Resolution No. 92-49 as amended ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304").

Items a through e should consider the preliminary cleanup goals for soil and groundwater identified in finding 13.

2. **Delayed Compliance:** If the discharger is delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the discharger shall promptly notify the Executive Officer and the Board may consider revision to this Order.

C. PROVISIONS

1. **No Nuisance:** The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in California Water Code Section 13050(m).

2. **Good Operation and Maintenance (O&M):** The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.
3. **Cost Recovery:** The discharger shall be liable, pursuant to California Water Code Section 13304, to the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the site addressed by this Order is enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the discharger over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.
4. **Access to Site and Records:** In accordance with California Water Code Section 13267(c), the discharger shall permit the Board or its authorized representative:
 - a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
 - b. Access to copy any records required to be kept under the requirements of this Order.
 - c. Inspection of any monitoring or remediation facilities installed in response to this Order.
 - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger.
5. **Self-Monitoring Program:** The discharger shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.
6. **Contractor / Consultant Qualifications:** All technical documents shall be signed by and stamped with the seal of a California registered geologist, a California certified engineering geologist, or a California registered civil engineer.
7. **Lab Qualifications:** All samples shall be analyzed by State-certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control (QA/QC) records for Board review. This provision does not apply to analyses that can only reasonably be performed on-site (e.g. temperature).

8. **Document Distribution:** Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the following agencies:

- a. City of Newark Fire Department
- b. Cal/EPA-Department of Toxic Substances Control (Permitting Branch)
- c. Alameda County Water District
- d. Alameda County Health Department

The Executive Officer may modify this distribution list as needed.

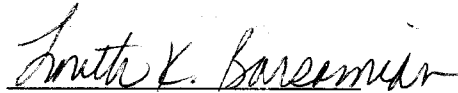
9. **Reporting of Changed Owner or Operator:** The discharger shall file a technical report on any changes in site occupancy or ownership associated with the property described in this Order.
10. **Reporting of Hazardous Substance Release:** If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the discharger shall report such discharge to the Regional Board by calling (510) 286-1255 during regular office hours (Monday through Friday, 8:00 to 5:00).

A written report shall be filed with the Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

This reporting is in addition to reporting to the Office of Emergency Services required pursuant to the Health and Safety Code.

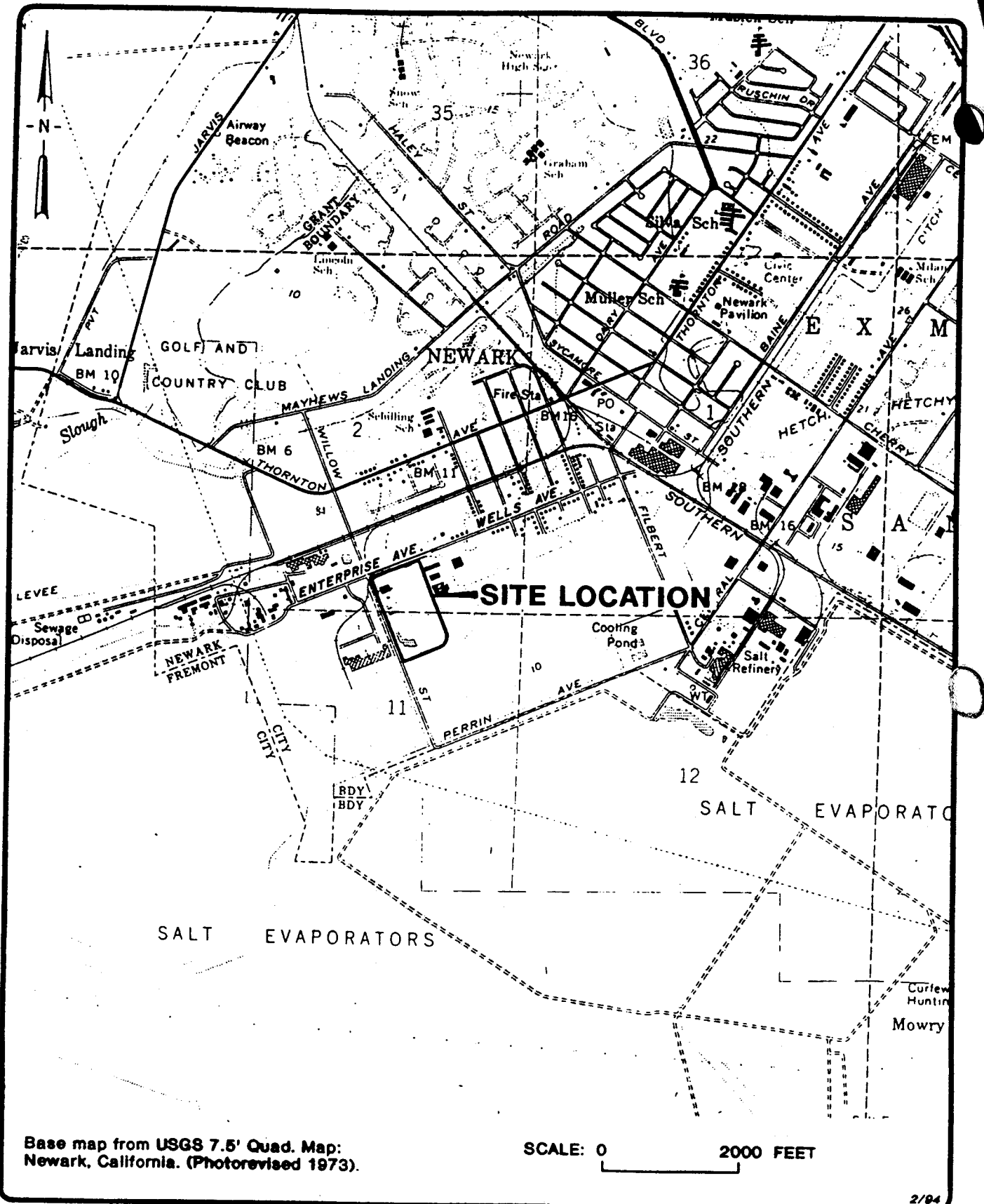
11. **Rescission of Existing Order:** This Order supercedes and rescinds Order No. 89-110.
12. **Periodic SCR Review:** The Board will review this Order periodically and may revise it when necessary. The discharger may request revisions and upon review the Executive Officer may recommend that the Board revise these requirements.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on July 15, 1998.


Loretta K. Barsamian
Executive Officer

FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO: IMPOSITION OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE SECTIONS 13268 OR 13350, OR REFERRAL TO THE ATTORNEY GENERAL FOR INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY

Attachments: Site Map
Self-Monitoring Program



EMCON
Associates

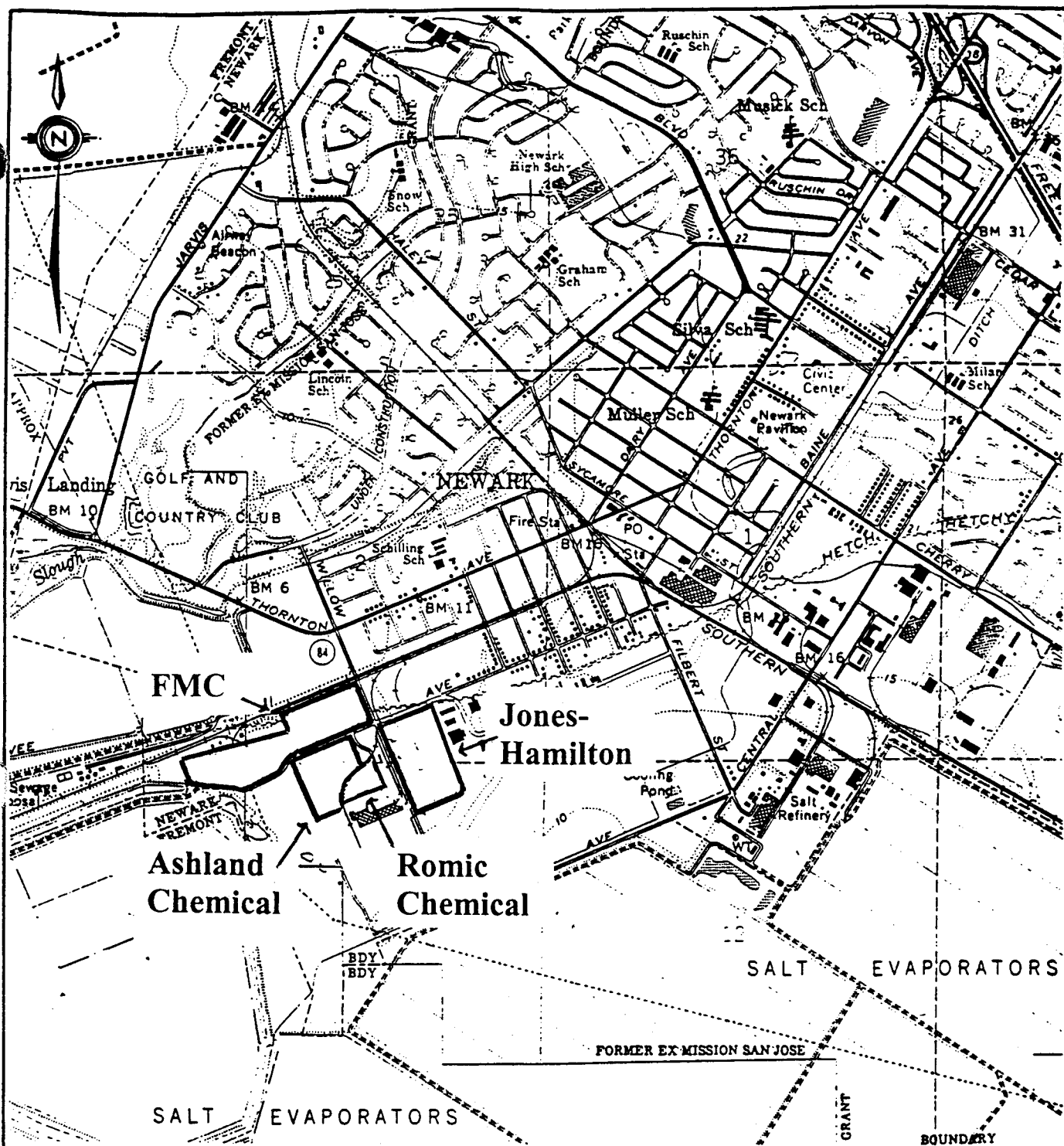
JONES-HAMILTON CO.
QUARTERLY GROUNDWATER MONITORING REPORT
NEWARK, CALIFORNIA

SITE LOCATION

FIGURE

1

PROJECT NO.
618-01.18



Approximate Scale in Feet
 0 2000 4000
 BASE: Map From USGS 7.5' Newark Quadrangle

Location Map

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

JONES-HAMILTON COMPANY

for the property located at

8400 ENTERPRISE DRIVE
NEWARK, ALAMEDA COUNTY

1. **Authority and Purpose:** The Board requests the technical reports required in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Board Order No. 98-067 (site cleanup requirements).
2. **Monitoring:** The discharger shall measure groundwater elevations quarterly in all monitoring wells, and shall collect and analyze representative samples of groundwater according to the following schedule:

Well #	Sampling Frequency	Analyses	Well #	Sampling Frequency	Analyses
J-1	SA	8010/8240	J-14	SA	8010/8240
J-2	SA	8010/8240	J-15	SA	8010/8240
J-3	A	8010/8240	J-16*	A	8010/8240
J-4R	SA	8010/8240	E-106	SA	8010/8240
J-5 (u)	A	8010/8240	J-10	SA	8010/8240
J6	SA	8010/8240	J-13	SA	8010/8240
J8*	A	8010/8240	SW-1 ⁴	SA	8010/8240
J9R	SA	8010/8240	B-19 ⁴	SA	8010/8240
J-11(u)	SA	8010/8240	J-12	SA	8010/8240

Key: SA = Semi-Annually A = Annually
8240 = EPA Method 8240 or equivalent

8010 = EPA Method 8010 or equivalent

8010/8240 = EPA Method 8240 in lieu of 8010 for second semi-annual

* = Indicates Newark Aquifer well, all others are shallow groundwater wells

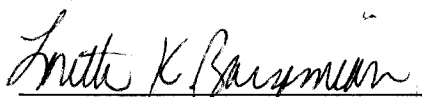
4 = Well located on Romic property

The discharger shall sample any new monitoring or extraction wells quarterly for the first year and semi-annually thereafter and analyze groundwater samples for the same constituents as shown in the above table. The discharger may propose changes in the above table; any proposed changes are subject to Executive Officer approval.

3. **Monitoring Reports:** The discharger shall submit semi-annual monitoring reports to the Board no later than 30 days following the end of the semi-annual period (e.g. report for July through December period due January 31). The first semi-annual monitoring report shall be due on July 31, 1998. The reports shall include:
 - a. **Transmittal Letter:** The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter shall be signed by the discharger's principal executive officer or his/her duly authorized representative, and shall include a statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.
 - b. **Groundwater Elevations:** Groundwater elevation data shall be presented in tabular form, and a groundwater elevation map should be prepared for each monitored water-bearing zone. Historical groundwater elevations shall be included in the second semi-annual report each year.
 - c. **Groundwater Analyses:** Groundwater sampling data shall be presented in tabular form, and an isoconcentration map should be prepared for one or more key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical method used, detection limits obtained for each reported constituent, and a summary of QA/QC data. Historical groundwater sampling results shall be included in the second semi-annual report each year. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases. Supporting data, such as lab data sheets, need not be included (however, see record keeping - below).
 - d. **Groundwater Extraction:** If applicable, the report shall include groundwater extraction results in tabular form, for each extraction well and for the site as a whole, expressed in gallons per minute and total groundwater volume for the period. The report shall also include contaminant removal results, from groundwater extraction wells and from other remediation systems (e.g. soil vapor extraction), expressed in units of chemical mass per day and mass for the period. Historical mass removal results shall be included in the second semi-annual report each year.

- e. **Status Report:** The quarterly report shall describe relevant work completed during the reporting period (e.g. interim remedial measures) and work planned for the following period.
- 4. **Violation Reports:** If the discharger violates requirements in the Site Cleanup Requirements, then the discharger shall notify the Board office by telephone as soon as practicable once the discharger has knowledge of the violation. Board staff may, depending on violation severity, require the discharger to submit a separate technical report on the violation within five working days of telephone notification.
- 5. **Other Reports:** The discharger shall notify the Board in writing prior to any site activities, such as construction or underground tank removal, which have the potential to cause further migration of contaminants or which would provide new opportunities for site investigation.
- 6. **Record Keeping:** The discharger or his/her agent shall retain data generated for the above reports, including lab results and QA/QC data, for a minimum of six years after origination and shall make them available to the Board upon request.
- 7. **SMP Revisions:** Revisions to the Self-Monitoring Program may be ordered by the Executive Officer, either on his/her own initiative or at the request of the discharger. Prior to making SMP revisions, the Executive Officer will consider the burden, including costs, of associated self-monitoring reports relative to the benefits to be obtained from these reports.

I, Loretta K. Barsamian, Executive Officer, hereby certify that this Self-Monitoring Program was adopted by the Board on July 15, 1998.



Loretta K. Barsamian
Executive Officer